I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV 078877250 US, in an envelope addressed to: MS Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 11/26/2003 Signature: Sand (Sarah J. Goodwin)

Docket No.: 65858-0029

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Charles J. Koehler, et al.

Application No.: Not Yet Assigned

Confirmation No.:

Filed: Concurrently Herewith

Art Unit: N/A

For:

FLUID CONDITION MONITORING USING

BROAD SPECTRUM IMPEDANCE

SPECTROSCOPY

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

Application No.: Not Yet Assigned Docket No.: 65858-0029 EV 078877250 US

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-0013, under Order No. 65858-0029. A duplicate copy of this paper is enclosed.

Dated: November 26,2003

Respectfully submitted,

Charles A. Bieneman

Registration No.: 51,472

RADER, FISHMAN & GRAUER PLLC

39533 Woodward Avenue

Suite 140

Bloomfield Hills, Michigan 48304

(248) 594-0648

Attorney for Applicant

R0214800

PTO/SB/08a/b (08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO					Complete if Known		
ľ		3 101 101111 14407			Application Number	Not Yet Assigned	
lι	NFO	DRMATI	ON DIS	CLOSURE	Filing Date	Concurrently Herewith	
	STA	TEMEN	T BY AF	PPLICANT	First Named Inventor	Charles J. Koehler	
	• • • •				Art Unit	N/A	
1		(Use as man	y sheets as ne	ecessary)	Examiner Name	Not Yet Assigned	
Shee	et	1	of	2	Attorney Docket Number	65858-0029	

, 4

	U.S. PATENT DOCUMENTS							
Examiner	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where			
Initials*		Number-Kind Code ² (if known)			Relevant Passages or Relevant Figures Appear			
	AA	US-6,620,621-B1	09-16-2003	Cohenford et al.				
	AB	US-20030141882-A1	07-31-2003	Zou et al.				
	AC	US-6,560,352-B2	05-06-2003	Rowe et al.				
	AD	US-6,549,861-B1	04-15-2003	Mark et al.				
	AE	US-6,433,560-B1	08-13-2002	Hansen et al.				
	AF	US-6,380,746-B1	04-30-2002	Polczynski et al.				
	AG	US-6,377,052-B1	04-23-2002	McGinnis et al.				
	AH	US-6,278,281-B1	08-21-2001	Bauer et al.				
	Al	US-5,985,120	11-16-1999	Cholli et al.				
	AJ	US-5,660,181	08-26-1997	Ho et al.				
	AK	US-5,361,628	11-08-1994	Marko et al.				

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (il known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
		-						

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ¹ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	JIANXUN HU, M.S., "The Characterization of Lubricating Fluids Using AC Impedance Spectroscopy", a dissertation, December 2000, Milwaukee, WI	
	СВ	"Principal Components Analysis" (downloaded on 11/25/2003) from http://www.okstate.edu/artsci/botany/ordinate/PCA.htm	
	CC	AAPO HYVARINEN, "Principal Component Analysis", 4/23/1999 (downloaded on 11/4/2003) from http://www.cis.hut.fi/~aapo/papers/NCS99web/node5.html	
,	CD	JAAKKO HOLLMEN, "Principal Component Analysis", 3/8/1996 (downloaded on 11/4/2003) from http://www.cis.hut.fi/~jhollmen/dippa/node30.html	
	CE	"Principal Component Analysis" (downloaded on 11/4/2003) from http://www.casaxps.cwc.net/FactorAnalysis.htm	
	CF	"Principal Components and Factor Analysis" (downloaded on 11/4/2003) from http://www.statsoftinc.com/textbook/stfacan.html	
	CG	"Algorithms, The Beer Lambert Law" (downloaded on 11/26/2003) from http://www.galactic.com/algorithms/beer_lambert.htm	
	СН	"Algorithms, Classical Least Squares (CLS)" (downloaded on 11/26/2003) from http://www.galactic.com/algorithms/cls.htm	
	CI	"Algorithms, Discriminant Analysis, The Mahalanobis Distance" (downloaded on 11/25/2003) from http://www.galactic.com/algorithms/discrim_mahaldist.htm	

Examiner	Date
Signature	Considered

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sul	ostitute for form 1449A/B/P	то		Complete if Known		
Ou.		. •		Application Number	Not Yet Assigned	
11	NFORMATIO	N DI	SCLOSURE	Filing Date	Concurrently Herewith	
S	TATEMENT	BY /	APPLICANT	First Named Inventor	Charles J. Koehler	
				Art Unit	N/A	
	(Use as many sl	heets as	s necessary)	Examiner Name	Not Yet Assigned	
Sheet	2	of	2	Attorney Docket Number	65858-0029	

C.	"Algorithms, Discriminant Analysis, The PCA/MDR Method" (downloaded on 11/25/2003) from http://www.galactic.com/algorithms/discrim_pca.htm
CI	("Algorithms, Inverse Least Squares" (downloaded on 11/25/2003) from http://www.galactic.com/algorithms/ils.htm
CI	http://www.galactic.com/algorithms/least_squares.htm
CI	http://www.galactic.com/algorithms/pls.htm
CI	"Algorithms, Principal Component Analysis Methods" (downloaded on 11/25/2003) from http://www.galactic.com/algorithms/pca.htm
C	"Algorithms, Principal Component Regression" (downloaded on 11/26/2003) from http://www.galactic.com/algorithms/pcr.htm

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	Date	
Signature	Considered	

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.